

TABLE NO. 32

**MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES, MONO COUNTY, CALIFORNIA**

AIRPORT CAPITAL IMPROVEMENT PROGRAM

ENGINEER'S ESTIMATE

Project No. 32 - Architectural/Engineering Design for
Project No. 33 - ARFF Building and Administration Building
Project No. 34 - Maintenance Building Apron and Access Road
Estimated Construction Cost (2014 unit prices) - \$3,694,000

Item No.	Description	Unit	Unit Price	Quantity	Cost
1	Categorical Exclusion	L.S.	L.S.	L.S.	\$ 20,000
2	Topographic Surveys	L.S.	L.S.	L.S.	25,000
3	Geotechnical Studies	L.S.	L.S.	L.S.	25,000
4	Engineering and Architectural Design including Preparation of Plans and Specifications, Engineer's Report, Engineer's Estimate*	L.S.	L.S.	L.S.	270,000
5	Administrative Costs	L.S.	L.S.	L.S.	10,000
	Total Project No. 32				\$ 350,000

*Does not include assistance in bidding and award or construction surveillance and consultation or resident engineering, testing and inspection during construction.

TABLE NO. 33

**MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES, MONO COUNTY, CALIFORNIA**

AIRPORT CAPITAL IMPROVEMENT PROGRAM

ENGINEER'S ESTIMATE

Project No. 33 - ARFF Building and Administration Building - 8,800 sq. ft.
(Based on 2014 Unit Prices)

Item No.	Description	Unit	Unit Price	Quantity	Cost
1	ARFF Building and Administration Building	Sq. Ft.	\$ 100	8,800.0	\$ 880,000
2	Mobilization	L.S.	L.S.	L.S.	5,000
3	Clearing and Grubbing	Acre	\$ 2,000	1.5	3,000
4	Excavation	Cu. Yd.	14.00	2,000.0	28,000
5	Imported Embankment	Cu. Yd.	25.00	18,000.0	450,000
6	Recompact 12" of Native Subgrade	Sq. Yd.	2.00	5,250.0	10,500
7	Aggregate Subbase (10")	Ton	40.00	2,800.0	112,000
8	Crushed Aggregate Base (6")	Ton	60.00	2,200.0	132,000
9	3" Bituminous Surface Course	Ton	120.00	850.0	102,000
10	Bituminous Prime Coat	Ton	1,400.00	3.0	4,200
11	Bituminous Tack Coat	Ton	1,400.00	1.0	1,400
12	Drainage Allowance	L.S.	L.S.	L.S.	50,000
13	Floodlighting Allowance	L.S.	L.S.	L.S.	60,000
	Total Project No. 33				\$ 1,838,100
	Total Project No. 33 - Use				\$ 1,838,000

TABLE NO. 34

**MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES, MONO COUNTY, CALIFORNIA**

AIRPORT CAPITAL IMPROVEMENT PROGRAM

ENGINEER'S ESTIMATE

***Project No. 34 - ARFF Building and Maintenance Building Apron and Access Road
(Based on 2014 Unit Prices)***

Item No.	Description	Unit	Unit Price	Quantity	Cost
1	Marking and Lighting of Closed Facilities	L.S.	L.S.	L.S.	\$ 10,000
2	Mobilization	L.S.	L.S.	L.S.	10,000
3	Clearing and Grubbing	Acre	\$ 2,000	3.5	7,000
4	Excavation	Cu. Yd.	14.00	2,500.0	35,000
5	Imported Embankment	Cu. Yd.	25.00	6,000.0	150,000
6	Recompact 12" of Native Subgrade	Sq. Yd.	2.00	19,500.0	39,000
7	Aggregate Subbase (10")	Ton	40.00	11,000.0	440,000
8	Crushed Aggregate Base (6")	Ton	60.00	6,600.0	396,000
9	3" Bituminous Surface Course	Ton	120.00	3,500.0	420,000
10	Bituminous Prime Coat	Ton	1,400.00	15.0	21,000
11	Bituminous Tack Coat	Ton	1,400.00	6.0	8,400
12	Marking Allowance	L.S.	L.S.	L.S.	10,000
13	Drainage Allowance	L.S.	L.S.	L.S.	90,000
14	Electrical Allowance	L.S.	L.S.	L.S.	60,000
15	Gas, Water and Sewer Allowance	L.S.	L.S.	L.S.	100,000
16	Floodlighting Allowance	L.S.	L.S.	L.S.	60,000
	Total Project No. 34				\$ 1,856,400
	Total Project No. 34 - Use				\$ 1,856,000

TABLE NO. 35

**MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES, MONO COUNTY, CALIFORNIA
AIRPORT CAPITAL IMPROVEMENT PROGRAM
ENGINEER'S ESTIMATE**

***Project No. 35 - Environmental Assessment - Extend Runway and Taxiway
and Terminal Building Addition***

Item No.	Description	Unit	Unit Price	Quantity	Cost
1	Environmental Assessment	L.S.	L.S.	L.S.	\$ 110,000
2	Administrative Costs	L.S.	L.S.	L.S.	10,000
	Total Project No. 35				\$ 120,000

TABLE NO. 36

**MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES, MONO COUNTY, CALIFORNIA
AIRPORT CAPITAL IMPROVEMENT PROGRAM
ENGINEER'S ESTIMATE**

***Project No. 36 - Engineering Design for*
Project No. 37 - Reconstruct West Hangar Taxilanes
Project No. 38 - Runway 9-27 Extension (100' x 1,200')
Estimated Construction Cost (2011 unit prices) - \$4,101,500**

Item No.	Description	Unit	Unit Price	Quantity	Cost
1	Categorical Exclusion	L.S.	L.S.	L.S.	\$ 10,000
2	Topographic Surveys	L.S.	L.S.	L.S.	20,000
3	Geotechnical Studies, Pavement Design	L.S.	L.S.	L.S.	20,000
4	Engineering and Architectural Design including Preparation of Plans and Specifications, Engineer's Report, Engineer's Estimate*	L.S.	L.S.	L.S.	285,000
5	Administrative Costs	L.S.	L.S.	L.S.	20,000
	Total Project No. 36				\$ 355,000

*Does not include assistance in bidding and award or construction surveillance and consultation or resident engineering, testing and inspection during construction.

TABLE NO. 37

**MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES, MONO COUNTY, CALIFORNIA**

AIRPORT CAPITAL IMPROVEMENT PROGRAM

ENGINEER'S ESTIMATE

Project No. 37 - Reconstruct West Hangar Taxilanes
(Based on 2014 Unit Prices)

Item No.	Description	Unit	Unit Price	Quantity	Cost
1	Mark & Light Closed Airport Facilities	L.S.	L.S.	L.S.	\$ 10,000
2	Mobilization	L.S.	L.S.	L.S.	10,000
3	Pulverize Existing AC and Mix with Existing Base	Sq. Yd.	\$ 4.00	8,900.0	35,600
4	Excavate Pulverized AC & AB, Stockpile,	Cu. Yd.	12.00	2,300.0	27,600
5	Scarify and Recompact 6" of Subgrade	Sq. Yd.	2.00	8,900.0	17,800
6	Aggregate Base Course	Ton	60.00	3,000.0	180,000
7	Bituminous Surface Course	Ton	120.00	1,550.0	186,000
8	Saw Cut Existing Bituminous Surface Course	Ln. Ft.	1.00	2,000.0	2,000
9	Bituminous Prime Coat	Ton	1,400.00	7.0	9,800
10	Bituminous Tack Coat	Ton	1,400.00	4.0	5,600
11	Airfield Marking	Sq. Ft.	2.00	550.0	1,100
	Total Project No. 37 Construction Cost				\$ 485,500
<i>F.A.A Ineligible Items</i>					
3	Pulverize Existing AC and Mix with Existing Base	Sq. Yd.	\$ 4.00	5,650.0	\$ 22,600
4	Excavate Pulverized AC & AB, Stockpile,	Cu. Yd.	12.00	1,450.0	17,400
5	Scarify and Recompact 6" of Subgrade	Sq. Yd.	2.00	5,650.0	11,300
6	Aggregate Base Course	Ton	60.00	1,900.0	114,000
7	Bituminous Surface Course	Ton	120.00	1,000.0	120,000
9	Bituminous Prime Coat	Ton	1,400.00	4.5	6,300
10	Bituminous Tack Coat	Ton	1,400.00	2.5	3,500
	Total F.A.A. Ineligible				\$ 295,100
	Total F.A.A. Eligible				\$ 190,400

TABLE NO. 38

**MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES, MONO COUNTY, CALIFORNIA**

AIRPORT CAPITAL IMPROVEMENT PROGRAM

ENGINEER'S ESTIMATE

Project No. 38 - Runway 9-27 Extension (100' x 1,200')
(Based on 2014 Unit Prices)

Item No.	Description	Unit	Unit Price	Quantity	Cost
1	Mark and Light Closed Airport Facilities	L.S.	L.S.	L.S.	\$ 10,000
2	Mobilization	L.S.	L.S.	L.S.	15,000
3	Clearing and Grubbing	Acre	\$ 2,000.00	21.0	42,000
4	Unclassified Excavation	Cu. Yd.	15.00	15,000.0	225,000
5	Scarify and Recompact Subgrade	Sq. Yd.	2.00	40,000.0	80,000
6	Pulverize Existing AC	Sq. Yd.	4.00	17,000.0	68,000
7	Excavate Pulverized AC & AB, Place as ASB	Cu. Yd.	16.00	3,000.0	48,000
8	Imported Aggregate Subbase (12")	Ton	40.00	12,600.0	504,000
9	Aggregate Base (12" or 4")	Ton	60.00	12,000.0	720,000
10	Asphaltic Concrete (3" or 2")	Ton	110.00	6,000.0	660,000
11	Bituminous Prime Coat	Ton	1,400.00	30.0	42,000
12	Bituminous Tack Coat	Ton	1,400.00	10.0	14,000
13	Asphalt Pavement Grooving	Sq. Yd.	3.00	14,000.0	42,000
14	Airfield Marking	Sq. Ft.	2.00	30,000.0	60,000
15	Marking Removal	Sq. Ft.	4.00	15,200.0	60,800
16	Retaining Wall - 2' to 8'	Ln. Ft.	500.00	1,300.0	650,000
17	Drainage Allowance	L.S.	L.S.	L.S.	150,000
18	Electrical Cable - 1/C, No. 8, L824	Ln. Ft.	2.00	6,000.0	12,000
19	Electrical Duct 1w-2" Type II	Ln. Ft.	16.00	5,300.0	84,800
20	Electrical Duct 1w-2" Type I	Ln. Ft.	25.00	500.0	12,500
21	Electrical Duct 2w-4" Type I	Ln. Ft.	35.00	300.0	10,500
22	New L867 Size E Handhole	Each	1,200.00	2.0	2,400
23	New Runway and Taxiway Edge Lights	Each	1,400.00	42.0	58,800
24	New Runway Threshold Lights	Each	1,400.00	8.0	11,200
25	New Airfield Guidance Signs	Each	4,000.00	2.0	8,000
26	Relocate PAPI	L.S.	L.S.	L.S.	25,000
	Total Construction Cost - Project 38				\$ 3,616,000

TABLE NO. 39

**MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES, MONO COUNTY, CALIFORNIA**

AIRPORT CAPITAL IMPROVEMENT PROGRAM

ENGINEER'S ESTIMATE

Project No. 39 - Pavement Maintenance/Management Program (PMMP)
(Based on 2014 Unit Prices)

Item No.	Description	Unit	Unit Price	Quantity	Cost
1	Pavement Maintenance/Management Program	L.S.	L.S.	L.S.	\$ 75,000
2	Administrative Costs	L.S.	L.S.	L.S.	5,000
	Total Project No. 39				\$ 80,000

TABLE NO. 40

**MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES, MONO COUNTY, CALIFORNIA**

AIRPORT CAPITAL IMPROVEMENT PROGRAM

ENGINEER'S ESTIMATE

Project No. 40 - Architectural/Engineering Design for
Project No. 41 - Terminal Building Addition
Estimated Construction Cost (2014 unit prices) - \$7,562,000

Item No.	Description	Unit	Unit Price	Quantity	Cost
1	Topographic Surveys	L.S.	L.S.	L.S.	\$ 30,000
2	Geotechnical Studies	L.S.	L.S.	L.S.	40,000
3	Engineering and Architectural Design including Preparation of Plans and Specifications, Engineer's Report, Engineer's Estimate*	L.S.	L.S.	L.S.	800,000
4	Administrative Costs	L.S.	L.S.	L.S.	30,000
Total Project No. 40					\$ 900,000

*Does not include assistance in bidding and award or construction surveillance and consultation or resident engineering, testing and inspection during construction.

TABLE NO. 41

**MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES, MONO COUNTY, CALIFORNIA
AIRPORT CAPITAL IMPROVEMENT PROGRAM
ENGINEER'S ESTIMATE**

***Project No. 41 - Terminal Building Addition
(Based on 2014 Unit Prices)***

Item No.	Description	Unit	Unit Price	Quantity	Cost
1	Terminal Building Addition	L.S.	L.S.	L.S.	\$ 7,562,000
	<i>Total Project No. 40</i>				\$ 7,562,000

TABLE NO. 42

**MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES, MONO COUNTY, CALIFORNIA
AIRPORT CAPITAL IMPROVEMENT PROGRAM
ENGINEER'S ESTIMATE**

***Project No. 42 - Airport Layout Plan Narrative including Updated ALP Drawings
(Based on 2014 Unit Prices)***

Item No.	Description	Unit	Unit Price	Quantity	Cost
1	Airport Layout Plan Narrative Including Updated ALP Drawings	L.S.	L.S.	L.S.	\$ 130,000
2	Administrative Costs	L.S.	L.S.	L.S.	10,000
	<i>Total Project No. 42</i>				\$ 140,000

TABLE NO. 43

**MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES, MONO COUNTY, CALIFORNIA
AIRPORT CAPITAL IMPROVEMENT PROGRAM - 2014 thru 2025**

**SUMMARY OF PROJECT COSTS
(Based on 2014 Unit Prices)**

Project/ Priority No.	Shown on ALP	Project Type	Development Year	Description	Construction Cost	Engineering & Administration	Total Project Cost	F.A.A. Participation	Sponsor Participation
1	Yes	E	2014	Environmental Assessment - Terminal Area Improvement, through 18 and 20	\$ -	\$ -	\$ 450,000	\$ 405,000	\$ 45,000
2	Yes	D	2014	Engineering Design - Projects No. 3, 5, 6, 7, and 8	-	205,000	205,000	184,500	20,500
3	Yes	D	2014	Pavement Marking	250,000	60,000	310,000	279,000	31,000
4	Yes	D	2014	Joint Seal Apron and Taxiway	69,000	16,000	85,000	76,500	8,500
5	Yes	D	2014	Reconstruct General Aviation Aircraft Parking Apron - Phase 1	1,387,000	300,000	1,687,000	1,500,300	186,700
6	Yes	D	2015	Obstruction Light Row - North Side	\$ 1,660,000	\$ 1,031,000	\$ 2,691,000	\$ 2,445,300	\$ 245,700
7	Yes	D	2015	Relocate Wind Socks and Segment Circle	\$ 210,000	\$ 46,000	\$ 256,000	\$ 230,400	\$ 25,600
8	Yes	D	2015	Install Obstruction Lights on Street Light Pole and Power Pole at Benton Crossing Road	86,000	19,000	105,000	96,300	10,700
9	Yes	D	2015	Second ARFF Vehicle	30,000	10,000	40,000	36,000	4,000
10	Yes	D	2016	Architectural Design - Airline Terminal - Project No. 14	\$ 1,120,000	\$ 75,000	\$ 1,195,000	\$ 1,082,700	\$ 112,300
11	Yes	D	2016	Engineering Design - Project No. 13	-	1,630,000	1,630,000	1,467,000	163,000
12	Yes	D	2016	Engineering Design - Projects 15 thru 18 and 20	-	250,000	250,000	225,000	25,000
13	Yes	D	2016	Gravel Runway Construction - New Area From Runway Safety Area Edge to Highway 395 ROW Fence Line	2,082,000	590,000	2,672,000	2,414,800	257,200
14	Yes	D	2017	Construct Airline Terminal	\$ 2,982,000	\$ 3,235,000	\$ 6,217,000	\$ 5,595,300	\$ 621,700
15	Yes	D	2018	Airline Terminal Apron, Decing Pad, and Terminal Apron	\$ 15,532,000	\$ 2,951,000	\$ 18,483,000	\$ 16,634,700	\$ 1,848,300
16	Yes	D	2018	Taxiways	\$ 5,113,000	\$ 970,000	\$ 6,083,000	\$ 5,474,700	\$ 608,300
17	Yes	D	2018	Access Road	1,064,000	250,000	1,314,000	1,137,600	126,400
18	Yes	D	2018	Automobile Parking Lot	1,376,000	250,000	1,626,000	1,463,400	162,600
19	Yes	E	2018	Terminal Area Utilities	1,530,000	275,000	1,805,000	1,624,500	180,500
20	Yes	D	2019	Environmental Assessment - Projects No. 23 and 26	-	120,000	120,000	108,000	12,000
21	Yes	D	2019	Construct Wildlife/Security Fence and Cameras	\$ 9,093,000	\$ 1,615,000	\$ 10,708,000	\$ 9,608,200	\$ 1,099,800
22	Yes	E	2019	Environmental Assessment - Projects 23, 24, 26, 30, and 31	\$ 738,000	\$ 140,000	\$ 878,000	\$ 790,200	\$ 87,800
23	Yes	D	2019	Land Acquisition and/or Use Permits - Project No. 25	-	605,000	605,000	544,500	60,500
24	Yes	D	2020	Construct New General Aviation Apron (179,000 sq. ft.)	1,405,000	280,000	1,685,000	1,516,500	168,500
25	Yes	D	2020	Reconstruct General Aviation Aircraft Parking Apron - Phase 2	\$ 11,220,000	\$ 2,890,000	\$ 14,110,000	\$ 12,704,400	\$ 1,411,600
26	Yes	D	2020	ADWP & U.S. Forest Service Land Acquisition and/or Use Permits	100,000	20,000	120,000	108,000	12,000
27	Yes	D	2020	Widen Taxiways from 50' to 75' to Meet Taxiway Edge Safety Margin for Q400 & 25' Wide Shoulders	2,995,000	550,000	3,545,000	3,103,500	345,500
28	Yes	P	2020	Pavement Maintenance/Management Program Update	-	80,000	80,000	72,000	8,000
29	Yes	E	2020	Airport Layout Plan Narrative Including Updated ALP Drawings	-	180,000	180,000	162,000	18,000
30	Yes	D	2021	Environmental Assessment - Projects No. 30, 31, 33, and 34	-	100,000	100,000	90,000	10,000
31	Yes	D	2021	Widen Runway Shoulders to 20'	1,300,000	250,000	1,550,000	1,395,500	155,000
32	Yes	D	2021	Widen Aircraft Holding Aprons	315,000	60,000	375,000	337,500	37,500
33	Yes	D	2022	Architectural/Engineering Design - Projects No. 33 & 34	-	350,000	350,000	315,000	35,000
34	Yes	D	2022	ARFF Building and Administration Building - 8,800 sq. ft.	1,838,000	402,000	2,240,000	2,016,000	224,000
35	Yes	E	2022	ARFF Building and Maintenance Building Apron & Access Road	1,856,000	350,000	2,206,000	1,985,400	220,600
36	Yes	D	2023	Environmental Assessment - Projects No. 38 and 41	-	120,000	120,000	108,000	12,000
37	Yes	D	2023	Engineering Design - Projects No. 37 & 38	-	355,000	355,000	319,500	35,500
38	Yes	D	2024	Reconstruct West Hangar Taxilanes*	485,500	90,000	575,500	525,500	50,000
39	--	D	2024	Runway 9-27 Extension - 100' x 1,200'	690,000	4,306,000	5,000,000	4,500,000	500,000
40	Yes	D	2024	Pavement Maintenance/Management Program Update	-	80,000	80,000	72,000	8,000
41	Yes	D	2025	Architectural/Engineering Design - Project No. 41	-	900,000	900,000	810,000	90,000
42	Yes	P	2025	Terminal Building Addition	7,562,000	1,435,000	8,997,000	8,097,300	899,700
				Airport Layout Plan Narrative Including Updated ALP Drawings	-	140,000	140,000	126,000	14,000
				TOTAL PROJECT COSTS	\$ 35,132,500	\$ 10,427,000	\$ 45,559,500	\$ 40,711,100	\$ 4,848,400
					\$ 65,543,500	\$ 19,534,500	\$ 85,077,500	\$ 76,277,300	\$ 8,800,200

*Only 25 feet of the lee hangar taxilanes are eligible for Federal participation.

AIRPORT CAPITAL IMPROVEMENT PROGRAM (ACIP)

MAMMOTH YOSEMITE AIRPORT MAMMOTH LAKES, MONO COUNTY, CALIFORNIA

PROGRAM NARRATIVE

The Town of Mammoth Lakes, with financial assistance from the F.A.A. through the Airport Improvement Program, proposes the development of 42 projects at the Mammoth Yosemite Airport. This Program Narrative provides a brief description of each project and details of the proposed construction.

Project No. 1 – Environmental Assessment – Terminal Area Development, Regrade ROFA, and Wildlife/Security Fence

Alaska Airlines began operations at the Mammoth Yosemite Airport in the winter of 2008 starting with direct operations from Los Angeles to Mammoth Yosemite Airport using Q400 aircraft. United Airlines is now providing service from San Diego and San Francisco to Mammoth Yosemite Airport using RJ700 aircraft. It is forecast that this year approximately 40,000 passenger enplanements will be realized at Mammoth Yosemite Airport.

In 2008 the Town built a new temporary airline terminal and, due to environmental constraints, the terminal was constructed within the footprint area of an existing building. The existing equipment storage building was the largest building on the airport and occupied 5,000 square feet. This building was gutted out and reconfigured as a temporary terminal. With current operations the temporary terminal is overcrowded, and it was necessary to construct a sprung structure in 2011 to act as a hold room to accommodate the increased passenger load.

A Terminal Area Study has been conducted that shows a new moderate sized terminal building, terminal apron, access road, parking lot, and wildlife/security fence and cameras will be required. The development of the new terminal facilities will require an Environmental Assessment (EA). This EA is included in this project.

It will also be necessary to regrade the Runway Object Free Area (ROFA). This regrading will also be included in this EA.

A breakdown of costs for this EA is included in Table No. 1.

Project No. 2 – Engineering Design – Project No. 3, and 5 through 8

F.A.A. is desirous of issuing AIP grants based on bids. In order to meet those requirements, it is necessary that the engineering design for the project be started 6 to 12 months before the grant award. It is proposed to complete the engineering design for Projects No. 3, and 5 through 8, included in this ACIP, in this Project No. 2. A description of these projects is as follows:

- Project No. 3 – Pavement Marking
- Project No. 5 – Reconstruct General Aviation Aircraft Parking Apron Phase 1
- Project No. 6 – Obstruction Light Row – North Side
- Project No. 7 – Relocate Wind Socks and Segmented Circle

- Project No. 8 – Install Obstruction Lights on Street Light Pole and Power Pole at Benton Crossing Road

The design will be carried through preparation of plans and specifications, Engineer's Estimate, and Engineer's Report. A separate contract will be required for assistance in bidding the project, construction surveillance, construction testing and inspection, as built drawings, Final Engineer's Report, and updating the ALP.

The cost summary for the engineering services required for this project is included in Table No. 2.

Project No. 3 – Pavement Marking

A recent Division of Aeronautics inspection indicated that the runway edge stripes have oxidized to the point where they are now yellow and that they need to be repainted white to eliminate pilot confusion. The markings on the entire airfield side of the airport have faded due to weathering and snow plow operations. It is proposed in this project to remark the runway, taxiway, and apron markings.

The construction cost breakdown for this project is included in Table No. 3.

Project No. 4 – Joint Seal Apron and Taxilane

The aircraft parking aprons and taxilane in front of the west hangars were not reconstructed at the same time that the runway and taxiways were reconstructed and, therefore, require some maintenance. A portion of the apron has a Portland cement concrete pavement. This pavement is jointed and the seal in the joints has failed due to age. It is necessary that these joints be resealed. The remaining portion of the apron has a bituminous surface course pavement. Half of this pavement has sawed and sealed joints at approximately 15-foot spacing to control thermal cracking and the other half does not. The taxilane in front of the West hangars has also been sawed and sealed to control thermal cracking. The seal in the joints on the jointed sections has deteriorated and needs to be resealed. The area of the apron that did not receive the joint treatment has developed significant cracks caused by thermal stresses and these cracks are too severe to rehabilitate and requires reconstruction in a separate project.

The new joint seal will obliterate part of the existing marking. The entire area to receive joint seal will be remarked.

The construction cost breakdown of this work is included in Table No. 4.

Project No. 5 – Reconstruct Aircraft Parking Apron – Phase 1

In 2008 under AIP 17 and 18 the runway and taxiways at Mammoth Yosemite Airport were reconstructed. The north general aviation tie down apron has experienced significant deterioration due to weathering and thermal stresses. This apron will need to be reconstructed as part of this project. Most of the grades on this apron cannot be adjusted because of existing

buildings and other facilities, so portions of the apron will be totally reconstructed and other portions will have the pavement and base pulverized and new sections placed on top. New shoulders will be added. Standard marking will be applied.

A construction cost breakdown of this project is included in Table No. 5.

Project No. 6 – Obstruction Light Row – North Side

Doe Ridge, the east hangars, and a portion of the west hangars are obstructions as defined by FAR Part 77. Doe Ridge penetrates the transitional surface and the horizontal surface. The hangars penetrate the transitional surface. It is proposed to construct a row of flashing red obstruction lights at a distance of 390 feet north of the runway centerline to identify the objects in this area that are listed as obstructions.

The construction cost breakdown for this project is included in Table No. 6.

Project No. 7 – Relocate Wind Socks and Segmented Circle

The existing windsocks at the ends of Runways 9 & 27 are located within the Runway Safety Area. The existing segmented circle and wind cone are within the existing Runway Object Free Area. In order to comply with F.A.A Runway Safety Area and Object Free Area standards these segmented circles and windsocks need to be relocated. This project consists of relocating the two existing windsocks outside the Runway Safety Area and relocating the existing segmented circle and wind cone to the other side of the runway and outside the Runway Object Free Area. In addition new duct and cable will be supplied to the relocated windsocks and segmented circle and wind cone.

The construction cost breakdown for this project is included in Table No. 7.

Project No. 8 – Install Obstruction Lights on Street Light and Power Pole at Benton Crossing Road

The existing street light and power pole at Benton Crossing Road penetrate the Threshold Siting Departure Plane by approximately 3 feet. It is proposed in this project to install a red solar powered obstruction light on the top of each of these poles.

The construction cost breakdown for this project is included in Table No. 8.

Project No. 9 – Second ARFF Vehicle

With the increased airline activity at the airport, a second Airport Rescue and Firefighting (ARFF) Vehicle is required for safety at the airport. It is proposed in this project to acquire a new ARFF vehicle.

The cost breakdown of this vehicle is included in Table No. 9.

Project No. 10 – Architectural Design – Airline Terminal – Project No. 14

F.A.A. is desirous of issuing AIP grants based on bids. In order to meet those requirements, it is necessary that the architectural design for the project be started 6 to 12 months before the grant award. The temporary terminal is overloaded and a new permanent terminal will be required. It is proposed to complete the architectural design for the New Airline Terminal (Project 14), included in this ACIP, in this Project No. 10. These terminal facilities are required to accommodate the forecast airline growth at the airport.

The design will be carried through preparation of plans and specifications, Engineer's Estimate, and Engineer's Report. A separate contract will be required for assistance in bidding the project, construction surveillance, construction testing and inspection, as built drawings, Final Engineer's Report, and updating the ALP.

The cost summary for the architectural services required for this project is included in Table No. 10.

Project No. 11 – Engineering Design – Regrade ROFA - Project No. 13

F.A.A. is desirous of issuing AIP grants based on bids. In order to meet those requirements, it is necessary that the engineering design for the project be started 6 to 12 months before the grant award. In many areas to the south of Runway 9-27 the soil beyond the RSA but within the ROFA is higher than the runway. The area between the south edge of the RSA and the U.S. Highway 395 ROW fence line will be regraded to meet ROFA standards. The design of this project (Project No. 13) will be included in this item of the ACIP.

The design will be carried through preparation of plans and specifications, Engineer's Estimate, and Engineer's Report. A separate contract will be required for assistance in bidding the project, construction surveillance, construction testing and inspection, as built drawings, Final Engineer's Report, and updating the ALP.

The cost summary for the engineering services required for this project is included in Table No. 11.

Project No. 12 – Engineering Design – New Terminal Airline Apron, Access Road, Auto Parking, and Utilities – Projects No. 15 through 18 and 20

F.A.A. is desirous of issuing AIP grants based on bids. In order to meet those requirements, it is necessary that the engineering design for the project be started 6 to 12 months before the grant award. The temporary terminal is overloaded and a new permanent terminal will be required along with new airline apron, roads, automobile parking lots, and utilities. It is proposed to complete the engineering design for the New Terminal Airline Apron, Access Road, Auto Parking, Utilities, and Wildlife/Security Fence and Cameras (Projects 15 through 18 and 20), included in this ACIP, in this Project No. 12. These terminal facilities are required to accommodate the forecast airline growth at the airport.

The design will be carried through preparation of plans and specifications, Engineer's Estimate, and Engineer's Report. A separate contract will be required for assistance in bidding the project, construction surveillance, construction testing and inspection, as built drawings, Final Engineer's Report, and updating the ALP.

The cost summary for the engineering services required for this project is included in Table No. 12.

Project No. 13 – Grade Runway Object Free Area From Runway Safety Area Edge to Highway 395 ROW Fence Line

Some of the soil between Highway 395 and the runway safety area south of Runway 9-27 is 0 to 6 feet above the adjoining runway centerline. The runway safety area itself is graded to F.A.A. standard grades. The soils in this area penetrate the object free area surface. This land is on U.S. Forest Service land. It is proposed in this project to regrade the runway object free area from the edge of the runway safety area to the Highway 395 right-of-way fence line so that the soil in this area is at or below the existing grade of the runway centerline. The soil removed from this area will be placed as embankment to accommodate the proposed western extension of the runway. There is enough soil to be removed from this area to provide the entire embankment required for a 1,200-foot runway extension plus a 1,000-foot runway extended safety area.

The construction cost breakdown for this project is included in Table No. 13.

Projects No. 14 through 18 – New Terminal, Airline Apron, Access Road, Auto Parking and Utilities Construction

The existing temporary terminal is already too small for existing traffic and within the next five years the enplaned passengers are expected to increase from 40,000 per year to 67,000 per year. To alleviate this crowding the Airport has constructed a temporary sprung structure. It is necessary that the Airport develop a new terminal at the earliest possible time. Taking into account environmental requirements and design requirements, it is anticipated that the earliest a terminal could be constructed would be 2017. It is proposed in this project to construct a new 40,010 sq. ft. terminal building including main terminal and concourse. To serve this terminal a 190-car parking lot will be constructed, the access road will be extended, and new utilities will be installed.

It is also proposed to construct a new commercial airline ramp and taxiways to accommodate airline operations and a new deicing apron for the airline operations. The ramp and deicing apron will be constructed of Portland cement concrete to accommodate the airline aircraft operations.

A construction cost breakdown of these projects is included in Tables No. 14 through 18.

Project No. 19 – Environmental Assessment – Projects No. 23 and 26

In order to continue the development of additional features at the airport, including the construction of a new general aviation apron and the widening of taxiways from 50 feet to 75 feet, it will be necessary to prepare a new Environmental Assessment. The environmental document will update previous environmental documents, including mitigation measures.

The estimated cost of this document is included in Table No. 19.

Project No. 20 – Construct Wildlife/Security Fence and Camera

Current security fencing at the Mammoth Yosemite Airport consists of a short section of chain link fencing in the temporary terminal and general aviation FBO areas only. All other fencing consists of barb wire fence. To provide adequate security for this airport, it will be necessary to construct an 8-foot chain link fence around the entire property with adequate gates for tenants. The 8-foot fence without barb wire on top is required to discourage deer from jumping the fence onto the airport. A 6-foot fence, even with barb wire, does not provide adequate deterrent for deer jumping over the fence. Twelve-foot swing gates will be installed in critical locations where use is minimal. Automatic electrically-operated gates will be installed in three locations around the terminal and general aviation area.

A new airfield security camera system will be installed, which will provide capability of monitoring activity at each automatic gate and at critical areas around the terminal and general aviation parking areas.

A construction cost breakdown of this project is included in Table No. 20.

Project No. 21 – Engineering Design – Projects No. 23, 24, 26, 30, and 31

F.A.A. is desirous of issuing AIP grants based on bids. In order to meet those requirements, it is necessary that the engineering design for the project be started 6 to 12 months before the grant award. It is proposed to complete the engineering design for Projects No. 23, 24, 26, 30, and 31, included in this ACIP, in this Project No. 21. A description of these projects is as follows:

- Project No. 23 – Construct New General Aviation Apron
- Project No. 24 – Reconstruct General Aviation Aircraft Parking Apron Phase 2
- Project No. 26 – Widen Taxiway from 50' to 75' and Add 25' Shoulders
- Project No. 30 – Widen Runway Shoulders
- Project No. 31 – Widen Aircraft Holding Aprons

The design will be carried through preparation of plans and specifications, Engineer's Estimate, and Engineer's Report. A separate contract will be required for assistance in bidding the project, construction surveillance, construction testing and inspection, as built drawings, Final Engineer's Report, and updating the ALP.

The cost summary for the engineering services required for this project is included in Table No. 21.

Project No. 22 – Environmental Assessment – LADWP and U.S. Forest Service Land Acquisition and/or Use Permits

In order to continue the development of additional features at the airport, including the acquisition of land from LADWP, it will be necessary to prepare a new Environmental Assessment. The environmental document will update previous environmental documents and will cover the airport land acquisition, including mitigation measures. The estimated cost of this document is included in Table No. 22.

Project No. 23 – Construct New General Aviation Apron

When Mammoth Yosemite Airport is upgraded to an ARC C III, some of the existing aircraft tie downs will be too close to the runway and become unusable. This, combined with anticipated growth at the airport, will result in inadequate aircraft tie down space. It is proposed in this project to expand the general aviation apron to accommodate 44 additional tie down spaces. This will require excavating to subgrade, scarifying and recompacting the subgrade, and placing 12 inches of aggregate subbase course, 6 inches of aggregate base course, and 3 inches of bituminous surface course. In addition, new marking and tie down anchors will be installed.

The construction cost breakdown of this project is included in Table No. 23.

Project No. 24 – Reconstruct General Aviation Aircraft Parking Apron – Phase 2

In 2008 under AIP 17 and 18 the runway and taxiways at Mammoth Yosemite Airport were reconstructed. The north general aviation tie down apron has experienced significant deterioration due to weathering and thermal stresses. This apron will need to be reconstructed as part of this project. Most of the grades on this apron cannot be adjusted because of existing buildings and other facilities, so portions of the apron will be totally reconstructed and other portions will have the pavement and base pulverized and new sections placed on top. New shoulders will be added. Standard marking will be applied.

The first phase reconstruction of this apron is scheduled for 2014 in Project No. 5. This project includes the second phase reconstruction of the general aviation aircraft parking apron.

A construction cost breakdown of this project is included in Table No. 24.

Project No. 25 – LADWP and U.S. Forest Service Land Acquisition and/or Use Permits

With the proposed expansion of the airport, it will be necessary to acquire property rights for certain lands adjacent to the airport. Some of these lands are owned by LADWP and it is proposed to purchase these properties. Other land required is U.S. Forest Service land. It is proposed to acquire long-term use permits for the Forest Service land. The estimated cost of this acquisition is included in Table No. 25.

Project No. 26 – Widen Taxiways from 50' to 75' to Meet Taxiway Edge Safety Margin for Q400 and Widen Shoulders

The existing parallel taxiway and cross taxiways serving Runway 9-27 are 50 feet wide and do not have any shoulders. The Q400 aircraft currently used by the airlines classified as ARC C III, TDG 5 requires a taxiway width of 75 feet. It is proposed to widen these taxiways from 50 to 75 feet to accommodate the Q400 aircraft and other aircraft in the ARC C III category.

The existing taxiway fillet radius on the taxiway to runway connection and taxiway fillet radius on the taxiway to taxiway connections do not meet the new ARC C III standards and will be increased in this project. In addition, it is required that an ARC C III airport has 25-foot wide paved shoulders on the taxiway. It is proposed in this project to widen existing taxiways from 50 to 75 feet and place 25-foot wide shoulders on each side of the taxiway.

The taxiway edge stripe will be removed and remarked at the new edge of taxiway and the existing taxiway edge reflectors will be relocated.

A construction cost breakdown of this project is included in Table No. 26.

Project No. 27 – Update Pavement Maintenance/Management Program

The Pavement Maintenance/Management Program (PMMP) is proposed to be completed in 2014. This PMMP will evaluate and set forth maintenance and reconstruction requirements resulting from both surface distress and deep-seated distress and will provide information as to remaining pavement life of existing pavement sections under existing and forecast loading, together with recommendations for maintenance and/or reconstruction. Traffic conditions and environmental conditions change over the years, which have an influence on the performance of the pavements. It is, therefore, considered good practice to update the PMMP every 5 to 6 years. At each five-year period pavement condition surveys, which automatically provide Pavement Condition Index values that represent the surface distress on the pavement sections, should be conducted. At each 10-year period falling weight deflectometer tests and Fatigue Analysis studies, which evaluate deep-seated distresses and forecast remaining pavement life should be conducted. This PMMP Update included in Project 27 will represent the first update and will only include pavement condition surveys and maintenance update requirements.

The cost breakdown of this program is included in Table No. 27.

Project No. 28 – Airport Layout Plan Narrative Including ALP Updated Plans

The last Airport Layout Plan Update for Mammoth Yosemite Airport was prepared in 2013. F.A.A. requires the Sponsor to have on file an approved Airport Layout Plan in order to be eligible for F.A.A. funding at each airport. The Town is desirous of preparing an Airport Layout Narrative, including updated ALP plans, for Mammoth Yosemite Airport in 2020 to include all modifications and additions to the plans. This update will include a narrative report, updated Airport Layout Plan drawings, and an updated Exhibit "A" Property Map.

The breakdown of costs for this work is included in Table No. 28.

Project No. 29 – Environmental Assessment – Projects No. 30, 31, 33, and 34

In order to continue the development of additional features at the airport, including the widening of runway shoulders and aircraft holding aprons and the construction of a new ARFF Building & Administration Building and new Maintenance Building Apron and Access Road, it will be necessary to prepare a new Environmental Assessment. The environmental document will update previous environmental documents, including mitigation measures.

The estimated cost of this document is included in Table No. 29.

Project No. 30 – Widen Runway Shoulders

The current shoulders on Runway 9-27 are 12 feet wide. ARC CIII standards for aircraft weighing less than 150,000 pounds require 20-foot wide shoulders. In this project it is proposed to widen the existing runway shoulders from 12 feet to 20 feet. The additional shoulder construction will consist of 2" of bituminous surface course & 4" of aggregate base course.

A construction cost breakdown of this project is included in Table No. 30.

Project No. 31 – Widen Aircraft Holding Aprons

When the ARC of the airport is upgraded to C III, the holding bar markings need to be 270 feet from the centerline of the runway. When the parallel taxiway is widened to 75 feet, the hold bars at each end of the runway where holding aprons exist will be located 7.5 feet in from the edge of the taxiway. Aircraft waiting on the holding aprons will need to stay behind these hold lines. In order to provide adequate space for aircraft to hold at each end of the runway while other aircraft are operating on the runway, it will be necessary that the existing holding aprons be widened and extended. This work is included in this project.

The construction cost breakdown of this project is included in Table No. 31.

Project No. 32 – Architectural/Engineering Design – Projects No. 33 and 34

F.A.A. is desirous of issuing AIP grants based on bids. In order to meet those requirements, it is necessary that the engineering design for the project be started 6 to 12 months before the grant award. It is proposed to complete the engineering design for Projects No. 33 and 34, included in this ACIP, in this Project No. 32. A description of these projects is as follows:

- Project No. 33 – ARFF Building and Administration Building (8,800 sq. ft.)
- Project No. 34 – Maintenance Building Apron and Access Road

The design will be carried through preparation of plans and specifications, Engineer's Estimate, and Engineer's Report. A separate contract will be required for assistance in bidding the

project, construction surveillance, construction testing and inspection, as built drawings, Final Engineer's Report, and updating the ALP.

The cost summary for the engineering services required for this project is included in Table No. 32.

Project No. 33 – ARFF Building and Administration Building – 8,800 sq. ft.

The equipment storage, maintenance, and administration building has been converted to a temporary terminal, which eliminates the facilities for airport administration and for fire fighting and equipment maintenance and storage facilities. It is proposed in this project to construct a new 8,800 square foot building to accommodate fire equipment, maintenance equipment, and administrative offices. In addition, an access road and apron in front of the new ARFF and Administration Building will be built.

A construction cost breakdown of this project is included in Table No. 33.

Project No. 34 – ARFF Building and Maintenance Building Apron and Access Road

In order to serve the new ARFF and maintenance building, it will be necessary to construct a new paved apron behind the building and a new access road and automobile parking lot in front of the building. This apron and road will be designed to support the load of the vehicles using the facilities and will be designed to provide ready access to all facilities on the airport.

A construction cost breakdown of this project is included in Table No. 34.

Project No. 35 – Environmental Assessment – Projects No. 38 and 41

In order to continue the development of additional features at the airport, including the extension of the runway and the construction of a terminal building addition, it will be necessary to prepare a new Environmental Assessment. The environmental document will update previous environmental documents, including mitigation measures.

The estimated cost of this document is included in Table No. 35.

Project No. 36 – Engineering Design – Projects No. 37 and 38

F.A.A. is desirous of issuing AIP grants based on bids. In order to meet those requirements, it is necessary that the engineering design for the project be started 6 to 12 months before the grant award. It is proposed to complete the engineering design for Projects No. 37 and 38, included in this ACIP, in this Project No. 36. A description of these projects is as follows:

- Project No. 37 – Reconstruct West Hangar Taxilanes
- Project No. 38 – Runway 9-27 Extension (100' x 1,200')

The design will be carried through preparation of plans and specifications, Engineer's Estimate, and Engineer's Report. A separate contract will be required for assistance in bidding the project, construction surveillance, construction testing and inspection, as built drawings, Final Engineer's Report, and updating the ALP.

The cost summary for the engineering services required for this project is included in Table No. 36.

Project No. 37 – Reconstruct West Hangar Taxilanes

The West Hangar Taxilanes have experienced significant deterioration due to weathering and thermal stresses. These taxilanes will need to be reconstructed as part of this project. Most of the grades on these taxilanes cannot be adjusted because of existing buildings, so the pavement will be totally reconstructed to the same grades as existing. Standard marking will be applied. Only 25 feet of the taxilanes are eligible for federal funding. The costs have been broken down to show the total cost, F.A.A. eligible cost, and ineligible costs.

A construction cost breakdown of this project is included in Table No. 37.

Project No. 38 – Runway 9-27 Extension – 100' x 1,200'

Runway 9-27 at the Mammoth Yosemite Airport is currently 100 feet wide by 7,000 feet long. This runway is used by airline and business jet aircraft. Alaska Airlines uses the Q 400 aircraft and United Airlines started service in the winter of 2012 using CRJ 700 jet aircraft. The runway at Mammoth Yosemite Airport is located above elevation 7,130 feet, and on hot summer days Alaska Airlines has been unable to take off with a full load of passengers. It is anticipated that United will have the same problem with the CRJ 700. It will be necessary to extend Runway 9-27 to a total length of 8,200 feet at this time to accommodate these airlines at this altitude.

In this project it is proposed to extend the runway by 1,200 feet to the west to provide a total runway length of 8,200 feet. The land to the west of runway is lower than the runway, and it will require significant quantities of fill to provide the necessary finished runway grade and clear site distance. This fill will be placed as part of Project No. 12, Grade Runway Object Free Area from Runway Safety Area Edge to Highway 395 ROW Fence Line. A parallel taxiway and new cross taxiway will be included in this project.

A construction cost breakdown of this project is included in Table No. 38.

Project No. 39 – Pavement Maintenance/Management Program

An update to the Pavement Maintenance/Management Program (PMMP) is proposed to be completed in 2020. The 2020 PMMP will evaluate and set forth maintenance and reconstruction requirements resulting from surface distress only. Traffic conditions and environmental conditions change over the years, which have an influence on the performance of the pavements. It is, therefore, considered good practice to update the PMMP every 5 to 6 years. At each five-year period pavement condition surveys, which automatically provide

Pavement Condition Index values that represent the surface distress on the pavement sections, should be conducted. At each 10-year period falling weight deflectometer tests and Fatigue Analysis studies, which evaluate deep-seated distresses and forecast remaining pavement life should be conducted. This PMMP Update included in Project 39 will include pavement condition surveys, falling weight deflectometer tests, Fatigue Analysis studies, remaining pavement life, and recommendations for maintenance and reconstruction.

The cost breakdown of this program is included in Table No. 39.

Project No. 40 – Engineering Design – Project No. 41

F.A.A. is desirous of issuing AIP grants based on bids. In order to meet those requirements, it is necessary that the engineering design for the project be started 6 to 12 months before the grant award. It is proposed to complete the engineering design for Project No. 41, included in this ACIP, in this Project No. 40. A description of this project is as follows:

- Project No. 41 – Terminal Building Addition

The design will be carried through preparation of plans and specifications, Engineer's Estimate, and Engineer's Report. A separate contract will be required for assistance in bidding the project, construction surveillance, construction testing and inspection, as built drawings, Final Engineer's Report, and updating the ALP.

The cost summary for the engineering services required for this project is included in Table No. 40.

Project No. 41 – Terminal Building Addition

Current forecasts indicate that by 2025 the airline passenger enplanements at the airport will have grown to a point that additional terminal space will be required. Design of the terminal will be such that all utilities and air handling equipment will be sized in the initial terminal development to accommodate modest expansions. The proposed terminal expansion will include added space in the ticket counter, baggage pickup, hold rooms, and concessions.

A construction cost breakdown of this project is included in Table No. 41.

Project No. 42 – Airport Layout Plan Narrative Including ALP Updated Plans











It is proposed to prepare an Airport Layout Plan Update for Mammoth Yosemite Airport in 2020. F.A.A. requires the Sponsor to have on file an approved Airport Layout Plan in order to be eligible for F.A.A. funding at each airport. The Town is desirous of preparing an Airport Layout Narrative, including updated ALP plans, for Mammoth Yosemite Airport in 2025 to include all modifications and additions to the plans. This update will include a narrative report, updated Airport Layout Plan drawings, and an updated Exhibit "A" Property Map.

The cost breakdown of this project is included in Table No. 42.

The Engineer's Estimate for each project is included in Tables 1 through 42. A summary of project costs showing construction costs, engineering and administration costs, total costs, F.A.A. participation, and local participation are included in Table No. 43.

A Sketch Map has been prepared and is included. On the sketch map the location and extent of each project are identified.

* * *

LEGEND	EXISTING
AIRPORT PROPERTY LINE	_____
ASBESTOS FACILITY	_____
AVIATION FACILITY	_____
AIRCRAFT MOVEMENT AREA	
FACILITIES	
ROAD (PAVED)	
ROAD (GRAVEL)	
DIRT/RAIL ROAD	
FORCE	
RUNWAY LIGHT	
THRESHOLD LIGHTS	
SUPPLEMENTAL WINDOW	
SECTION CORNER	
OBSTRUCTION LIGHT	